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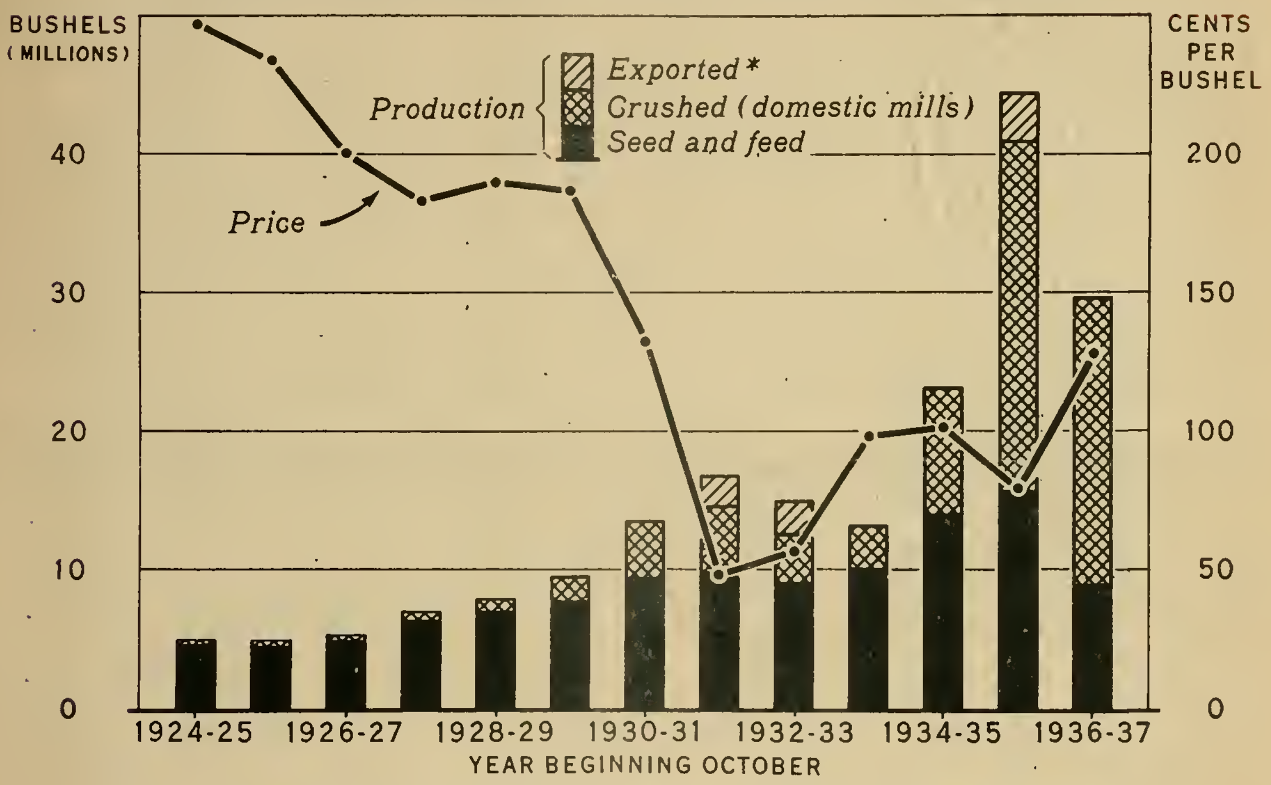
# THE FATS AND OILS SITUATION

## SOYBEANS: PRODUCTION, UTILIZATION, AND AVERAGE FARM PRICE, 1924 TO DATE



* FROM RECORDS OF INSPECTIONS BY FEDERAL LICENSED INSPECTORS

U. S. DEPARTMENT OF AGRICULTURE NEG. 32745 BUREAU OF AGRICULTURAL ECONOMICS

A MARKED INCREASE IN THE PRODUCTION OF SOYBEANS HAS TAKEN PLACE IN RECENT YEARS, AND WITH LARGER SUPPLIES AVAILABLE THE QUANTITIES CRUSHED ALSO HAVE INCREASED TREMENDOUSLY. EXPORTS HAVE BEEN SMALL, AND HAVE OCCURRED ONLY IN THOSE YEARS IN WHICH PRICES WERE RELATIVELY LOW. HIGH PRICES IN EARLIER YEARS WERE DUE LARGELY TO THE FACT THAT A LARGE PART OF THE ANNUAL PRODUCTION WAS USED FOR SEED PURPOSES.

Table 1.- Price per pound of specified fats and oils, February - March, 1937-38

| Fat or oil | 1937 | | 1938 | |
|---|---|---|---|---|
| | Feb. | Mar. | Feb. | Mar. |
| | Cents | Cents | Cents | Cents |
| **Domestic prices -** | | | | |
| Butter, 92-score, N. Y. | 34.3 | 35.8 | 31.1 | 30.3 |
| Oleomargarine, domestic vegetable, Chicago | 16.5 | 16.6 | 15.0 | 15.1 |
| Lard, prime steam, Chicago | 12.4 | 12.5 | 8.6 | 8.8n |
| Lard, refined, Chicago | 13.3 | 13.2 | 10.1 | 10.0 |
| Lard compounds, Chicago | 13.8 | 13.7 | 10.3 | 10.2 |
| Coconut oil, edible, N.Y. | 11.2 | 11.0 | 6.1 | 6.1 |
| Cottonseed oil, crude, f.o.b. S.E. mills | 9.9 | 9.9 | 6.7 | 7.0n |
| Cottonseed oil, p.s.y., N.Y. | 11.0 | 11.1 | 7.9 | |
| Soybean oil, refined, N.Y. | 12.2 | 12.2 | 9.1 | 9.2 |
| Peanut oil, domestic, refined, N. Y. | 13.5n | 13.5n | 10.0n | 10.2n |
| Rape oil, refined, N.Y. | 11.4 | 11.7 | 12.1 | 12.0 |
| Oleo oil, No. 1, N. Y. | 13.8 | 13.4 | 9.5 | 9.2 |
| Oleostearine, barrels, N. Y. | 10.4 | 10.3 | 7.4 | 7.6 |
| | | | | |
| Corn oil, refined, N.Y. | 12.9n | 13.0 | 9.7 | 10.2 |
| Olive oil, edible, N.Y. | 31.3n | 33.3n | 27.9n | 26.0 |
| Sunflower oil, refined, N.Y. | 12.3n | 12.2n | - | - |
| Teaseed oil, crude, N.Y. | 14.7n | 14.0n | 8.5 | 8.4 |
| | | | | |
| Coconut oil, crude, Pacific Coast | 8.2n | 8.6n | 3.6 | 3.6 |
| Tallow, inedible, Chicago | 8.8 | 8.9 | 5.3 | 5.0 |
| Grease, house, N. Y. | 8.5 | 8.8 | 4.9 | 4.6 |
| Palm oil, crude, N. Y. | 6.9n | 6.6 | 4.2 | 4.1 |
| Olive oil foots, barrels, N.Y. | 12.5 | 12.0n | 9.2 | 8.9 |
| Palm-kernel oil, denatured, N.Y. | 7.4n | 7.4 | 4.2 | 4.1 |
| Babassu oil, tanks, N.Y. (futures) | 10.9 | 11.4 | 6.8n | 6.7 |
| Sardine oil, tanks, Pacific Coast | 6.9 | 7.2 | 6.0 | 6.2 |
| | | | | |
| Linseed oil, raw, Minneapolis | 9.8 | 10.0 | 9.8 | 9.6 |
| Tung oil, drums, Atlantic Coast | 15.4 | 15.4 | 15.3 | 13.3 |
| Perilla oil, drums, N.Y. | 11.6 | 11.6 | 11.1 | 10.6 |
| Soybean oil, crude, f.o.b. mills | 9.9 | 9.8 | 6.1 | 6.4 |
| Menhaden oil, crude, f.o.b. Baltimore | 5.1 | 5.7 | 5.0n | 4.9n |
| | | | | |
| **Foreign prices - 1/** | | | | |
| Cotton oil, crude, naked, Hull | 6.5 | 6.5 | 4.1 | 4.2 |
| Copra, Resecada, Philippines | 4.3 | 4.4 | 2/ 1.6 | |
| Palm-kernel oil, crude, Hull | 7.1 | 7.2 | 4.5 | 4.4 |
| Whale oil, crude, No. 1, Rotterdam | 5.5 | 5.0 | 3.6 | 3.2 |
| Tallow, beef, fair-fine, London | 6.4 | 6.2 | 4.6 | 4.5 |
| Linseed oil, naked, Hull | 5.9 | 6.3 | 6.2 | 6.1 |

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1/ Converted to U.S. cents per pound at current monthly rates of exchange.

2/ Preliminary.

# SOYBEAN OIL AND SOYBEANS

## THE SOYBEAN SITUATION

BACKGROUND.- A marked upward trend in soybean acreage in the United States occurred during the 10 years from 1924 to 1933. Total acreage more than doubled, increasing from 1.8 million to 3.8 million acres. In the next 2 years acreage nearly doubled again - to a record of more than 7 million acres in 1935. Production likewise has been on an upward trend. The greatest increase was from 13 million bushels in 1933 to 44 million bushels in 1935. The large increase in bean production resulted from the increased acreage, the larger percentage of acreage harvested for beans, and heavier yields per acre. Average yields for the United States increased rather steadily from 11 bushels per acre in 1924 to 16.5 bushels in 1935 and 17.5 bushels in 1937. The acreage harvested for beans, which has always been less than the percentage harvested for hay, averaged 26 percent in the 5-year period 1930-34, and 34 percent in the 3 years 1935-37.

The monthly average farm price of soybeans was about $2.50 per bushel in 1924-25, when the demand for seed purposes was the most important farm price factor. Prices dropped to a depression low of 44 cents per bushel in December 1932, but rose to $1.26 per bushel in February 1935. Another price decline followed the record harvest of 1935; prices for the 1935-36 season averaged 79 cents per bushel. They advanced in the 1936-37 season, and in May 1937, at $1.74 per bushel, reached the highest level since 1929. With the harvesting of the large 1937 crop, prices declined sharply to an average of 86 cents per bushel for the 5 months October 1937-February 1938.

### Outlook for 1938-39

A 4-percent decrease in the prospective plantings of soybeans for all purposes, together with a probable smaller production of cottonseed, indicates that the domestic soybean situation may be somewhat more favorable for producers in 1938-39 than in the present season.

The March 1 prospective acreage of soybeans grown alone for 1938 was reported as 5,906,000 acres compared with 6,139,000 acres planted last year and 5,811,000 acres in 1936. Reductions from the 1937 acreage are confined largely to the Corn Belt, with the greatest acreage reduction in prospect in Illinois. On the other hand, in most of the southern States prospects are for increased acreages. In the past, the North Central section has been the most important source of soybeans for crushing. If the percentage of the crop harvested for beans in these States is about the same as during the past few years, and yields are about average, the total production of soybeans will be considerably smaller than it was last year. In the past, however, less than one-half of the crop has been harvested as beans, and changes in the acreage harvested for beans may vary widely from changes in the total acreage.

The 1937 soybean crop totaled 41 million bushels, the second largest crop on record. Since the harvesting of the 1937 crop, monthly average prices received by producers have varied from 83 to 93 cents per bushel, compared with a seasonal average of $1.28 for the 1936 crop. Prices in 1938-39 may average higher than for the current season, however, if production of soybeans and competing products is below that of 1937, and demand remains near the present level. Unless production is unusually low or demand improves sharply, it is not likely, however, that prices will average as high as they did for the 1936 crop.

The level of soybean prices is dependent largely on the prices of soybean meal and oil. In the past few months, prices of these products have shown some improvement but they are still well below those of a year ago. Monthly prices of soybean meal have been averaging somewhat above those of 2 years ago, while soybean oil prices have been materially lower.

Table 2.- Soybeans: Acreage and yield per acre, 1930-37

| Year | Harvested for hay | Grazed or hogged off | Harvested for beans 1/ | Equivalent of total solid acreage 2/ | Harvested for beans as a percentage of total acreage | Yield per acre |
|---|---|---|---|---|---|---|
| | 1,000 acres | 1,000 acres | 1,000 acres | 1,000 acres | Percent | Bushels |
| 1930 | 2,021 | 358 | 1,008 | 3,387 | 29.8 | 13.4 |
| 1931 | 2,700 | 390 | 1,104 | 4,194 | 26.3 | 15.2 |
| 1932 | 2,675 | 397 | 977 | 4,049 | 24.1 | 15.3 |
| 1933 | 2,443 | 337 | 997 | 3,777 | 26.4 | 13.2 |
| 1934 | 4,069 | 386 | 1,539 | 5,994 | 25.7 | 15.0 |
| 1935 | 4,000 | 414 | 2,697 | 7,111 | 37.9 | 16.5 |
| 1936 | 3,251 | 1,263 | 2,132 | 6,646 | 32.1 | 14.1 |
| 1937 3/ | 3,659 | 986 | 2,337 | 6,982 | 33.5 | 17.5 |

1/ Solid equivalent of acres from which soybeans are gathered.

2/ Computed as follows: Add acreage for - 1. Grain; 2. Hay; 3. Other purposes; 4. Interplanted with other crops reduced by 0.50 for all States except Mississippi which is reduced by 0.60.

3/ Preliminary.

Table 3.-Soybeans produced, crushed, exported and used for feed or seed, 1930-37

| Year | Production | Year beginning October | | | |
|---|---|---|---|---|---|
| | | Crushed | Exported 1/ | Total crushed and exported as percentage of production | Used for feed or seed 2/ |
| | 1,000 bu. | 1,000 bu. | 1,000 bu. | Percent | 1,000 bu. |
| 1930 | 13,471 | 4,069 | --- | 30.2 | 9,024 |
| 1931 | 16,733 | 4,725 | 2,161 | 41.2 | 10,219 |
| 1932 | 14,975 | 3,470 | 2,450 | 39.5 | 9,119 |
| 1933 | 13,147 | 3,054 | --- | 23.2 | 10,125 |
| 1934 | 23,095 | 9,105 | 19 | 39.5 | 13,678 |
| 1935 | 44,378 | 25,181 | 3,490 | 64.6 | 15,665 |
| 1936 3/ | 29,983 | 20,619 | 18 | 69.7 | 9,048 |
| 1937 3/ | 40,997 | | | | |

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1/ Inspected for export by Federal licensed inspectors.
2/ Production minus exports, quantity crushed, and changes in stocks.
3/ Preliminary.

Compiled as follows:
Production, Bureau of Agricultural Economics.
Crushings, Bureau of the Census, Animal and Vegetable Fats and Oils.

Table 4.-Soybeans crushed in the United States, by quarters, 1930-37

| Year | Calendar year | Jan.-Mar. | Apr.-June | July-Sept. | Oct.-Dec. |
|---|---|---|---|---|---|
| | 1,000 bu. | 1,000 bu. | 1,000 bu. | 1,000 bu. | 1,000 bu. |
| 1930 | 1,731 | 421 | 345 | 239 | 726 |
| 1931 | 4,637 | 1,080 | 1,289 | 974 | 1,294 |
| 1932 | 4,643 | 1,706 | 1,091 | 635 | 1,211 |
| 1933 | 3,154 | 1,050 | 811 | 397 | 896 |
| 1934 | 4,164 | 933 | 768 | 457 | 2,006 |
| 1935 | 12,308 | 2,662 | 2,239 | 2,198 | 5,209 |
| 1936 | 26,740 | 7,832 | 6,792 | 5,348 | 6,768 |
| 1937 1/ | 21,680 | 6,780 | 4,352 | 2,719 | 7,829 |

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1/ Preliminary.

Computed from Bureau of the Census, Animal and Vegetable Fats and Oils, annual, and quarterly mimeographed reports.

## World production and imports

Although accurate statistical data are not available for China, estimates of soybean production for the 6 years 1931-36 indicate that China usually produces more soybeans than any other country, in fact more than the two next largest producers, Manchuria and the United States together. Chinese production, however, is not a factor in world trade because practically the total production is domestically consumed for human food. In addition to home production, China normally takes important quantities of soybeans and soybean products from Manchuria.

Manchurian production is by great odds the most important factor in the world soybean trade. Average production in the 3 years 1935 to 1937 was more than three times as large as that in the United States. According to a report prepared January 25, 1938, by Agricultural Commissioner Owen L. Dawson at Shanghai, the production of soybeans in Manchuria in 1937 showed a slight increase over the preceding year, and with the larger carry-over the available supply is the largest in the past 4 years. Combined exports of soybeans and soybean products are expected to exceed those of last year.

Germany and Japan are the largest importers of soybeans, but imports have been decreasing in recent years. Imports of soybeans into the United Kingdom have been sharply reduced since an import duty of 10 percent ad valorem on soybeans became effective August 1, 1935. Imports of soybeans into the United States are practically restricted to varieties not grown commercially in the United States. These varieties are imported in small quantities for the manufacture of oriental foods and experimental plantings. The duty of 2 cents per pound on soybeans is equivalent to about 14 cents per pound on oil yield, and is effective therefore in preventing imports for crushing.

Table 5.-Soybeans: Production in specified countries, 1925-37

| Crop year | Country and harvest season | | | | | |
|---|---|---|---|---|---|---|
| | United States | China 1/ | Manchuria | Chosen | Japan | Netherland India 2/ |
| | Aug.-Sept. | June-Nov. | Sept.-Oct. | Oct. | Aug.-Oct. | June-Dec. |
| | 1,000 bu. | 1,000 bu. | 1,000 bu. | 1,000 bu. | 1,000 bu. | 1,000 bu. |
| 1925 | 4,875 | | 126,092 | 23,609 | 17,106 | 4,038 |
| 1926 | 5,239 | | 107,740 | 22,276 | 14,213 | 3,608 |
| 1927 | 6,938 | | 163,319 | 24,300 | 15,467 | 3,961 |
| 1928 | 7,880 | | 177,804 | 19,510 | 14,110 | 4,303 |
| 1929 | 9,398 | | 173,372 | 20,434 | 12,585 | 3,917 |
| | | | | | | |
| 1930 | 13,471 | | 196,949 | 22,989 | 14,381 | 4,692 |
| 1931 | 16,733 | 210,038 | 192,057 | 21,155 | 11,777 | 4,722 |
| 1932 | 14,975 | 240,685 | 156,816 | 22,578 | 11,435 | 5,471 |
| 1933 | 13,147 | 267,175 | 169,056 | 23,324 | 13,307 | 6,676 |
| 1934 | 23,095 | 207,400 | 122,973 | 19,519 | 10,255 | 6,448 |
| 1935 | 44,378 | 184,413 | 141,793 | 22,401 | 10,719 | 7,448 |
| 1936 | 29,983 | 3/226,179 | 152,375 | 19,375 | | 4/8,539 |
| 1937 3/ | 40,997 | | 153,330 | 22,606 | | |

1/ These data are presented as rough estimates but are believed to be the best available indication of trends of production in China. Estimates prior to 1931 are not available. 2/ Native crops only. 3/ Preliminary. 4/ The data for 1936 are reported as production minus seed for planting. Countries producing small amounts of soybeans include U.S.S.R.,Bulgaria,and others.

## SOYBEAN OIL

Production of soybean oil for the first quarter (October-December) of the 1937-38 season - from the 1937 crop of beans - was the largest ever reported for any one quarter, amounting to 70 million pounds compared with 60 million pounds in the corresponding period in the previous season. Prices of crude soybean oil in tanks at midwestern mills from October through December averaged lower than at any time since the fall of 1934. (See table 10.) During the 1935-36 and 1936-37 seasons of greatly increased production, crushings in the second quarter of the season, January through March, were larger than in the October-December quarter. Reported factory consumption of refined soybean oil amounted to only 32 million pounds from October through December 1937 compared with 55 million pounds in the corresponding months of 1936. A similar situation in the current season probably would cause stocks to continue upward.

Table 6.- Reported factory production of vegetable oils, specified years, October - December

| Year | Cottonseed oil | Soybean oil | Peanut oil | Corn oil | Total | Soybean oil as a percentage of total |
|---|---|---|---|---|---|---|
| | Mil. lb. | Mil. lb. | Mil. lb. | Mil. lb. | Mil. lb. | Percent |
| 1930 | 725 | 6 | 5 | 28 | 764 | 0.8 |
| 1935 | 574 | 44 | 29 | 30 | 677 | 6.5 |
| 1936 | 624 | 60 | 35 | 30 | 749 | 8.0 |
| 1937 | 810 | 70 | 8 | 33 | 921 | 7.6 |

Stocks of soybean oil at the beginning of the 1937-38 crushing season amounted to 36 million pounds, compared with 39 million pounds on October 1, 1936, and 14 million pounds a year earlier. By the end of December 1937, stocks had increased to more than 62 million pounds, the largest oil stocks ever recorded. On this date total stocks of all fats and oils were the largest on record, excepting 1933.

## Table 7.- Soybean oil, crude: Production, trade, stocks, and apparent disappearance, by quarters, 1933-37

(Net exports are indicated by a minus sign)

| Description and year | Calendar year | Year beginning Oct. | Jan. to Mar. | Apr. to June | July to Sept. | Oct. to Dec. |
|---|---|---|---|---|---|---|
| | 1,000 lb. | 1,000 lb. | 1,000 lb. | 1,000 lb. | 1,000 lb. | 1,000 lb. |
| Factory production - | | | | | | |
| 1933 | 26,533 | 26,197 | 8,677 | 6,834 | 3,422 | 7,610 |
| 1934 | 35,365 | 78,123 | 7,989 | 6,704 | 3,394 | 16,779 |
| 1935 | 105,056 | 208,965 | 22,679 | 19,532 | 19,083 | 43,712 |
| 1936 | 225,297 | 183,711 | 64,142 | 56,911 | 44,199 | 60,045 |
| 1937 1/ | 194,131 | | 60,543 | 38,789 | 24,334 | 70,466 |
| Imports for consumption - | | | | | | |
| 1933 | 2/ 3,669 | 1,661 | 0 | 0 | 2/2,762 | 2/ 907 |
| 1934 | 2,329 | 13,319 | 180 | 296 | 278 | 2,073 |
| 1935 | 14,249 | 9,691 | 2,188 | 6,304 | 2,254 | 3,003 |
| 1936 | 7,187 | 21,789 | 1,237 | 4,790 | 661 | 499 |
| 1937 1/ | 22,259 | | 2,393 | 15,533 | 3,364 | 970 |
| Domestic exports - | | | | | | |
| 1933 | 1,569 | 1,757 | 272 | 341 | 456 | 500 |
| 1934 | 2,040 | 3,812 | 248 | 472 | 537 | 783 |
| 1935 | 4,111 | 4,472 | 1,272 | 761 | 996 | 1,032 |
| 1936 | 4,029 | 4,883 | 1,248 | 1,084 | 1,058 | 640 |
| 1937 1/ | 5,748 | | 1,280 | 1,957 | 1,006 | 1,504 |
| Net trade - | | | | | | |
| 1933 | 2,100 | - 96 | - 272 | - 341 | 2,306 | 407 |
| 1934 | 789 | 9,507 | - 68 | - 176 | - 259 | 1,290 |
| 1935 | 10,138 | 5,219 | 916 | 6,043 | 1,258 | 1,921 |
| 1936 | 3,158 | 16,906 | - 11 | 3,706 | - 397 | - 141 |
| 1937 1/ | 16,511 | | 1,113 | 13,576 | 2,358 | - 534 |
| Stocks, end of period - | | | | | | |
| 1933 | 13,534 | 14,854 | 16,893 | 11,426 | 10,895 | 13,534 |
| 1934 | 19,007 | 14,226 | 15,917 | 16,599 | 14,854 | 19,007 |
| 1935 | 31,090 | 39,172 | 17,788 | 22,304 | 14,226 | 31,090 |
| 1936 | 34,416 | 36,044 | 49,240 | 57,627 | 39,172 | 34,416 |
| 1937 1/ | 62,460 | | 40,607 | 48,091 | 36,044 | 62,460 |
| Disappearance - | | | | | | |
| 1933 | 31,651 | 22,142 | 8,054 | 11,960 | 6,259 | 5,378 |
| 1934 | 30,682 | 88,258 | 5,538 | 5,846 | 5,380 | 13,916 |
| 1935 | 103,111 | 189,238 | 24,814 | 20,609 | 28,919 | 28,769 |
| 1936 | 225,129 | 203,745 | 45,981 | 52,230 | 62,257 | 64,660 |
| 1937 1/ | 182,598 | | 55,465 | 44,881 | 38,739 | 43,516 |

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1/ Preliminary. 2/ General imports, no reexports reported prior to Jan. 1934.

Production and stocks - Bureau of the Census, Animal and Vegetable Fats and Oils. Stocks are crude plus refined converted to crude basis (using 0.94).

Trade figures - Foreign Commerce and Navigation of the United States. Crude and refined not separately reported, used as crude.

Apparent disappearance computed from other items.

Though the consumption of soybean oil in the United States has increased eight-fold in the past 5 years, it was lower in 1937 than in 1936, and still represents a fairly small percentage of the total utilization of oils or of the production of domestic vegetable oils. Cottonseed oil dominates the vegetable oil field. In the calendar year 1936, total disappearance of soybean oil for all purposes amounted to 225 million pounds compared with 1,340 million pounds of cottonseed oil; the spread was even greater in 1937 when the disappearance of 183 million pounds compared with 1,752 million pounds of cottonseed oil.

Disappearance of soybean oil in 1937 continued the trends of 1935 and 1936, that is, the increased supplies found their way into manufactured foods rather than into paints and varnishes.

Table 8.- Soybean oil: Reported factory consumption, by classes of products, 1931-37

| Products | 1931 | 1932 | 1933 | 1934 | 1935 | 1936 | 1937 |
|---|---|---|---|---|---|---|---|
| | 1,000 lb. | 1,000 lb. | 1,000 lb. | 1,000 lb. | 1,000 lb. | 1,000 lb. | 1,000 lb. |
| Compounds and vegetable shortenings | 10,869 | 4,889 | 489 | 2,735 | 52,452 | 113,897 | 90,798 |
| Oleomargarine | 623 | 3 | 7 | 24 | 1,740 | 14,262 | 31,793 |
| Other edible | - | 180 | 460 | 509 | 9,421 | 21,598 | 15,530 |
| Total food | 11,492 | 5,072 | 956 | 3,268 | 63,613 | 149,757 | 138,121 |
| Soap | 3,816 | 5,571 | 4,235 | 1,354 | 2,549 | 5,023 | 10,274 |
| Drying industry 1/ | 8,901 | 11,593 | 14,274 | 13,353 | 17,871 | 17,419 | 17,157 |
| Miscellaneous | 2,051 | 1,875 | 2,626 | 2,109 | 1,665 | 3,405 | 3,038 |
| Loss, including foots | 1,625 | 1,158 | 867 | 823 | 5,468 | 8,959 | 9,926 |
| Total factory consumption | 27,885 | 25,269 | 22,958 | 20,907 | 91,166 | 184,563 | 178,516 |
| Total apparent disappearance | 35,145 | 39,255 | 31,651 | 30,682 | 103,111 | 225,129 | 182,598 |
| | As a percentage of the total factory consumption of soybean oil | | | | | | |
| | Percent | Percent | Percent | Percent | Percent | Percent | Percent |
| Compounds and vegetable shortenings | 39 | 19 | 2 | 13 | 57 | 61 | 51 |
| Oleomargarine | 2 | 2/ | 2/ | 2/ | 2 | 8 | 18 |
| Other edible | - | 1 | 2 | 2 | 10 | 12 | 9 |
| Total food | 41 | 20 | 4 | 15 | 69 | 81 | 78 |
| Soap | 14 | 22 | 19 | 7 | 3 | 3 | 6 |
| Drying industry 1/ | 32 | 46 | 62 | 64 | 20 | 9 | 9 |
| Miscellaneous | 7 | 7 | 11 | 10 | 2 | 2 | 2 |
| Loss, including foots | 6 | 5 | 4 | 4 | 6 | 5 | 5 |
| Total | 100 | 100 | 100 | 100 | 100 | 100 | 100 |

1/ Includes paints and varnishes, linoleum and oilcloth, and printing inks.
2/ Less than one-half of one percent.
Based on Bureau of the Census, Factory Consumption of Primary Animal and Vegetable Fats and Oils, by Classes of Products.

Utilization of soybean oil is possible in a wide variety of industries. Unlike most oils, it competes for recognition both in the drying field and in food industries. When prices are low enough, it is used in the soap kettle. During the war years when all animal fats were at a premium, large quantities of soybean oil were imported and used in soap. In 1917, 124 million pounds of imported oil were so used, but from 1921 to 1936, not more than 5-1/2 million pounds were used in soap in any one year (See table 8). In no year since 1921 has the amount of soybean oil used in soap contributed as much as 1 percent of the total fat materials used for this purpose.

The amount of soybean oil used by the drying industries increased from 9 million pounds in 1931 to over 17 million pounds in each of the past 3 years, but the percentage contributed by soybean oil to the total drying oils used has remained fairly constant. In each of the past 6 years soybean oil has contributed from 2 to 2.6 percent to the total of all the drying oils used; the high of 2.6 percent was reached in 1933, and the low in 1937 (table 9). Apparently, the increasing margin between the prices of soybean and linseed oils in the latter part of 1937 was not sufficient inducement to increase the percentage of soybean oil used by the paint and other drying industries. In 1932 when the slightly larger percentage of soybean oil was used, prices of soybean oil ranged from 3 cents to 4-1/2 cents per pound. Soybean oil can compete with linseed oil only in admixture with a more rapidly drying oil such as tung or perilla. The excise tax of 4-1/2 cents per pound placed on perilla oil in August 1936 doubtless has tended to discourage this combination. Prices of perilla oil for the calendar year 1937 averaged slightly over 12 cents per pound, compared with 8 or 9 cents per pound in the 3 previous years. The record of the past 6 years indicates that, with present technical knowledge, the percentage of total drying oils contributed by soybean oil will be increased only within fairly narrow limits.

In contrast to the comparatively constant percentage of soybean oil utilized in the drying industry, its use in foods has increased enormously in the past 3 years. That is, practically all of the increased supplies - attributed to the expanded acreage, larger percentage harvested for beans, and the higher yield per acre - have been absorbed by food industries. At the present time supplies seem to be running ahead of demand. Stocks on the latest reported date, that is, December 1937, were 8 percent larger than reported on any previous date.

To the total fats used in oleomargarine, soybean oil contributed less than one-tenth of one percent in 1932, 1933, and 1934, while in 1937 it contributed almost 10 percent, the actual volume increasing from 3 million pounds in 1932 to 32 million pounds in 1937. Similarly the percentage contributed by soybean oil to all fats used in compounds and vegetable shortenings amounted to one-tenth of one percent in 1933 and over 7 percent in 1936. A slight decrease occurred in 1937, the amount totaling only 5.5 percent. Throughout the period of greatly increased utilization in food, the price of soybean oil has been significantly lower than the price of cottonseed oil (See table 11).

Table 9.- Soybean oil as a percentage of the total reported factory consumption of fats and oils in compounds and vegetable shortenings, oleomargarine, and soap, and of estimated total use of drying oils

| Year | Compounds and vegetable shortenings | Oleomargarine | Soap | Drying industries |
|---|---|---|---|---|
| | Percent | Percent | Percent | Percent |
| 1931 | 0.9 | 0.2 | 0.3 | 1.5 |
| 1932 | .5 | 1/ | .4 | 2.5 |
| 1933 | .1 | 1/ | .3 | 2.6 |
| 1934 | .2 | 1/ | .1 | 2.2 |
| 1935 | 3.4 | .6 | .2 | 2.5 |
| 1936 | 7.1 | 4.4 | .4 | 2.2 |
| 1937 | 5.5 | 9.8 | .7 | 2.0 |

1/ Less than one-tenth of one percent.

Table 10.- Oleomargarine: Production and materials used in manufacture, United States, January and February, 1937 and 1938

| Item | 1937 1/ | | 1938 1/ | |
|---|---|---|---|---|
| | Jan. | Feb. | Jan. | Feb. |
| | 1,000 lb. | 1,000 lb. | 1,000 lb. | 1,000 lb. |
| Oleo oil | 1,304 | 1,363 | 794 | 911 |
| Oleostearine | 261 | 225 | 284 | 248 |
| Lard, neutral | 165 | 173 | 149 | 146 |
| Oleo stock | 134 | 131 | 57 | 72 |
| Total animal | 1,864 | 1,892 | 1,234 | 1,377 |
| Cottonseed oil | 13,815 | 12,848 | 19,580 | 16,792 |
| Soybean oil | 3,125 | 2,283 | 4,217 | 2,756 |
| Peanut oil | 307 | 234 | 236 | 318 |
| Corn oil | 151 | 175 | 209 | 41 |
| Total domestic vegetable | 17,438 | 15,540 | 24,242 | 19,907 |
| Coconut oil | 6,387 | 5,913 | 4,390 | 6,431 |
| Babassu oil | 591 | 258 | 2,138 | 1,099 |
| Palm-kernel oil | 448 | 83 | 919 | 528 |
| Palm oil | 138 | 191 | - | - |
| Sesame oil | 1 | - | - | - |
| Total foreign vegetable | 7,565 | 6,445 | 7,447 | 8,058 |
| Total fats and oils | 26,857 | 23,877 | 32,973 | 29,342 |
| Milk | 5,960 | 5,197 | 7,350 | 6,949 |
| Salt and other miscellaneous | 1,597 | 1,345 | 1,990 | 1,644 |
| Production of oleomargarine | 32,359 | 29,234 | 40,476 | 30,669 |

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Compiled and computed from reports of the Commissioner of Internal Revenue.

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Table 11.-Average price per pound of soybean oil, linseed oil, and cottonseed oil, specified localities, by months, 1932-33 to 1937-38

| Year beginning Oct. | Cottonseed oil, crude, in tanks, fob S. E. mills | Soybean oil, crude, in tanks, midwestern mills | Linseed oil, raw, in tanks, Minneapolis | Year beginning Oct. | Cottonseed oil, crude, in tanks, fob S. E. mills | Soybean oil, crude, in tanks, midwestern mills | Linseed oil, raw, in taks, Minneapolis |
|---|---|---|---|---|---|---|---|
| | Cents | Cents | Cents | | Cents | Cents | Cents |
| 1932-33 | | | | 1935-36 | | | |
| Oct. | 3.25 | 3.38 | 5.5 | Oct. | 9.17 | 8.06 | 9.0 |
| Nov. | 3.00 | 2.88 | 5.9 | Nov. | 9.16 | 8.06 | 9.0 |
| Dec. | 2.72 | 3.00 | 6.0 | Dec. | 9.36 | 8.10 | 9.3 |
| Jan. | 2.90 | 3.05 | 6.6 | Jan. | 8.91 | 7.64 | 9.5 |
| Feb. | 2.74 | 3.25 | 6.4 | Feb. | 8.45 | 7.20 | 9.4 |
| Mar. | 2.88 | 3.48 | 6.6 | Mar. | 8.30 | 6.81 | 9.3 |
| Apr. | 3.18 | 3.38 | 6.9 | Apr. | 8.36 | 6.81 | 9.2 |
| May | 4.16 | 4.50 | 8.2 | May | 7.62 | 6.26 | 9.0 |
| June | 4.38 | 6.06 | 8.8 | June | 8.08 | 6.03 | 9.0 |
| July | 5.45 | 7.40 | 10.3 | July | 8.67 | 7.92 | 9.8 |
| Aug. | 4.48 | 8.00 | 10.0 | Aug. | 8.86 | 8.03 | 10.1 |
| Sept. | 3.57 | 6.85 | 10.0 | Sept. | 8.86 | 8.17 | 9.9 |
| 1933-34 | | | | 1936-37 | | | |
| Oct. | 3.23 | 6.00 | 9.4 | Oct. | 8.62 | 7.95 | 9.7 |
| Nov. | 3.58 | 6.25 | 9.2 | Nov. | 8.70 | 7.99 | 9.2 |
| Dec. | 3.43 | 6.22 | 9.1 | Dec. | 9.55 | 9.11 | 9.5 |
| Jan. | 3.56 | 5.65 | 8.9 | Jan. | 10.36 | 9.83 | 9.8 |
| Feb. | 4.18 | 5.60 | 8.8 | Feb. | 9.39 | 9.94 | 9.8 |
| Mar. | 4.44 | 5.93 | 8.9 | Mar. | 9.94 | 9.75 | 10.0 |
| Apr. | 4.40 | 5.95 | 8.8 | Apr. | 9.50 | 9.75 | 10.8 |
| May | 4.23 | 5.95 | 9.2 | May | 8.91 | 8.96 | 10.9 |
| June | 4.68 | 5.50 | 9.6 | June | 8.25 | 8.23 | 10.6 |
| July | 5.10 | 5.80 | 9.4 | July | 8.00 | 7.75 | 10.5 |
| Aug. | 5.65 | 5.69 | 9.4 | Aug. | 7.05n | 6.47 | 10.6 |
| Sept. | 6.55 | 5.80 | 9.1 | Sept. | 6.22n | 6.22 | 10.4 |
| 1934-35 | | | | 1937-38 | | | |
| Oct. | 7.20 | 6.12 | 9.0 | Oct. | 6.10n | 5.85 | 10.4 |
| Nov. | 7.91 | 6.30 | 8.6 | Nov. | 5.98 | 5.62 | 10.2 |
| Dec. | 8.94 | 7.30 | 8.5 | Dec. | 5.94 | 5.25 | 10.0 |
| Jan. | 9.58 | 7.75 | 8.4 | Jan. | 6.17 | 5.75 | 10.0 |
| Feb. | 10.03 | 8.10 | 8.7 | Feb. | 6.70 | 6.12 | 9.8 |
| Mar. | 9.82 | 9.12 | 9.0 | Mar. | 7.03n | 6.40 | 9.6 |
| Apr. | 9.31 | 8.44 | 9.1 | | | | |
| May | 9.38 | 8.76 | 9.2 | | | | |
| June | 8.97 | 8.60 | 9.1 | | | | |
| July | 8.45 | 7.78 | 9.0 | | | | |
| Aug. | 8.72 | 7.13 | 8.2 | | | | |
| Sept. | 8.74 | 7.66 | 8.2 | | | | |

Compiled from the Oil, Paint, and Drug Reporter, except cottonseed oil prices from October 1932 to June 1933, which are from the New York Journal of Commerce.